# THE VETERINARY RECORD

A Weekly Journal for the Profession.

Edited by WILLIAM HUNTING, F.R.C.V.S.

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## RETURNS UNDER THE DISEASES OF ANIMALS ACTS.

The tables we publish every week showing the number of animals affected with scheduled diseases are only dry reading, and we fear not sufficiently attractive to ensure the attention they deserve. Occasional attention should be drawn to them lest we forget that the existence of these plagues is only due to the neglect of known laws, and their increase to the apathetic refusal of the Board of Agriculture to avail itself of the knowledge included in modern veterinary science.

There are really only three scheduled diseases which require the attention of the Board—anthrax, glanders, and swine-fever—and each of these is being played with. Swine fever certainly shows a steady but slow reduction—very slow. Before Sir George Brown left the Board of Agriculture he told them that to stamp out swine fever would require "cattle-plague regulations." During the last ten years the Board has spent half a million of money in attempting to control the disease by half measures, and every few years increases the stringency of its regulations. It is like drawing teeth at three sittings instead of one. This nerveless pottering action, which entails the greatest amount of expense and annoyance with the least possible progress, seems to be the main directing principle of the Board. It vitiates all their work and is undoubtedly due to the political instincts and interests which destroy the efficiency of every British Government Department.

Glanders is increasing—2065 horses have been attacked during the 38 weeks of this year against an average of 1715 for the three previous years. The wonder is that the increase is not greater. It would be, only for the services rendered to horse-owners by the private veterinary surgeon. No contagious disease was ever stamped-out unless attention was given to the "in-contact" animals. The Board's regulations for glanders absolutely protect the in-contact animals from any interference, and so we go on year after year losing about 2000 horses.

Anthrax is constantly increasing. This year 1134 animals have been attacked against an average of 785 for the previous three years. This disease is constantly imported by wool, hair, hides, bones, and feeding cakes—but not one regulation exists to limit this dangerous trade. Our home population suffers and no effort is made to protect it.

Is such negligence and ineptness to go on for ever?

## AN OPEN JAW-JOINT.

On June 24th a light van mare which was turned out to grass for lameness met with an accident. She "had a wound each side of her head below the ears as though she had had her head fast in a gate." The farmer had tried to catch her but failed, and some three or four days elapsed before she was secured and examined.

When seen there were two wounds, one on each side, just above the zygomatic arch. That on the near side was superficial and healing; that on the off side was suppurating, about two inches long, and extended down on to the zygomatic arch. From it was a flow of synovia, very evident when the jaws were moved.

Treatment was commenced, on June 28th, by thoroughly washing and cleansing the wound. A tight nose band was put on to limit the motion of the jaw, and a mixture of boracic acid and corrosive sublimate was dusted profusely on the wound three times a day. The nose band was fixed for 48 hours, then slackened three times a day for food and water, but it was not till July 15th that all escape of synovia ceased. Although the case was doubtless one of septic synovitis hopes were entertained of recovery. The nose band was removed, the wound healed completely and the mare seemed to progress favourably for some days.

Then it was noticed that she was not feeding well. Half masticated food was returned to the manger, and not half as much was eaten as should have been. As green food seemed to be eaten best she was kept chiefly on that diet. All water was stopped except such as had oatmeal stirred into it. But still the mare lost condition.

On August 1st it was noticed that the masseter muscle on the affected side was wasting. If the fingers were placed in the animal's mouth its jaws were opened to their full extent.

The wasting of the masseter muscle continued, food was refused, and the condition of the mare gradually became worse and worse.

Believing that these symptoms were due to structural changes in the jaw joint and that recovery was impossible, the mare was slaughtered on August 28th.

A post-mortem examination revealed necrosis of the joint, and the accompanying photograph shows very well the diseased and healthy joint surfaces. The cartilage was completely destroyed.

To show the two joint surfaces, and to enable the photographer to produce a picture which would be most effective, the two coronoid processes were sawn off. This enabled the photograph to show the joint surfaces from a front view.

The case is interesting as showing the danger of neglecting wounds in this position. Because the mare was difficult to catch, and because no one knew the exact injury which had taken place, no treatment was adopted until four days after the accident—by which time the wound had become purulent and the joint cavity affected with septic synovitis.

Probably direct injury to the nerve caused the wasting of the masseter muscle.

W. HUNTING, F.R.C.V.S.

## ANTHRAX IN FEEDING CAKES.

By Prof. JOHN DUNSTAN, M.R.C.V.S., F.R.S.E.
Royal Dick Veterinary College, Edinburgh.

Having recently conducted several experiments with the object of determining the presence or absence of anthrax organisms in feeding cakes, I venture to submit the results of those in which cotton cake was used, in the hope that they may be of interest to the general practitioner. They certainly emphasise the necessity in many mysterious outbreaks of making strict enquiry into the nature of the food supply. Of the six samples tested, three were found to be infected (I may say these were not samples taken at random, but were all previously suspected.)

This is, of course, not the first time that food materials have been found to be infected with anthrax. The celebrated cases of Denny *v.* Covington, and Brougham *v.* Pattison, in which oats and oil cake respectively were found infected, are still fresh in our minds.

Anthrax, judging from the reports published by the Board of Agriculture, unfortunately seems to be gaining ground in this country. Many cases are no doubt derived from home-grown bacteria, but doubtless many are caused by spores introduced from foreign countries in feeding stuffs, bones, hides, hair, wool, etc. Many of the raw materials from which the various feeding cakes are manufactured are imported from countries where anthrax is rampant, and no doubt in many instances these raw materials are infected, and there is also no doubt that neither the heat nor the pressure used in the manufacture of cakes is sufficient to destroy the anthrax spores.

### *Experiment I.*

*Material.*—Undecorticated cotton cake, with very numerous mites, also scraps of hay and oat husks.

*Method.*—Cut up some of the cake with a sterile knife, and mixed a portion with twice its bulk of sterile water, in a sterile beaker, stirring with a sterile glass rod, strained through fine sterilised muslin and injected 1 c.c. of the liquid under the skin of the right thigh of each of three guinea-pigs and one rabbit.

*Result.*—Four days later found one of the guinea pigs dead, no anthrax bacilli present. Right thigh hard and greatly swollen, with abscess at seat of inoculation. Made gelatine and agar cultures of the pus and grew various micro-organisms.

On the evening of the fourth day, another guinea-pig died, no anthrax bacilli present. Large abscess at seat of injection, surrounded by a quantity of œdematous fluid. Made cultures on agar of peritoneal fluid, but no anthrax growth.

The third guinea-pig died on the 12th day not of anthrax.

The rabbit remained healthy and seemed none the worse for the experience.

Pounded some cake in a sterile glass mortar, mixed with sterile water in a sterile beaker, and incubated at 37° C. for 24 hours, at the end of which I placed a drop on a glass slide by means of a platinum loop, and examined microscopically. This revealed very numerous and varied micro-organisms, many of them actively motile.

Fed the incubated cake to four rabbits and one guinea-pig, all of which remained healthy.

### *Experiment II.*

*Material.*—Crushed cotton cake. The specimen looked to be perfectly fresh and sweet.

*Method.*—As described in Experiment I., except that the cake being already crushed did not need cutting up. Injected 1 c.c. of the washing into each of five guinea pigs.

*Result.*—Next day one of the pigs found dead of pyæmia. (This could not of course be the result of the inoculation; the animal was one purchased specially for this experiment and must have been diseased previously).

The second guinea-pig was found dead on the third day, but no anthrax bacilli present.

The third guinea-pig found dead on fourth day, not anthrax.

The fourth guinea-pg died on the fifth day—118 hours after inoculation—of anthrax.

The fifth guinea-pig died on the seventh day, not of anthrax.

One hour after the death of No. 4 I inoculated two guinea-pigs with blood from the heart. The first of these died 28 hours after inoculation, and the second during the same night, *i.e.*, between 28 and 40 hours after inoculation, both of anthrax. From each of these three I obtained pure cultures of the *Bacillus anthracis*, both on agar and in gelatine.

### *Experiment III.*

*Material.*—Undecorticated cotton cake. Good fresh, clean sample.

*Method.*—As described in Experiment I. Injected 2 c.c. of liquid into each of ten guinea-pigs.

*Result.*—Some of them walked rather stiffly for a few days, but beyond this showed no signs of ill-health.

### *Experiment IV.*

*Material.*—Undecorticated cotton cake. Looked clean, fresh, and good; no mites.

*Method.*—As described in Experiment I. Injected 1 c.c. of liquid into each of ten guinea-pigs.

*Result.*—None of them appeared to suffer any inconvenience, and all remained healthy.

### *Experiment V.*

*Material.*—Undecorticated cotton cakes. Sample looked quite fresh and good.

*Method.*—As described in Experiment I. Injected 2 c.c. of washings into each of four guinea pigs.

*Result.*—First guinea pig found dead on the morning of the fifth day after inoculation. Anthrax bacilli present in blood in enormous numbers. Grew pure cultures from the blood on agar and in glycerine (stab), also from spleen pulp. The other three pigs remained alive and healthy.

*Experiment VI.*

*Material.*—Undecorticated cotton cake. Sample looked clean and fresh.

*Method.*—As described in Experiment I. Injected 1½ c.c. of washings into each of five guinea pigs.

*Result.*—Two guinea-pigs found dead of septicæmia forty-nine hours after inoculation. Third guinea-pig died on the fifth day of anthrax. The other two remained healthy.

## CASE OF BILE POISONING.

Perhaps the following case may be of some interest to your readers.

*Subject.*—A brown van mare, six years old.

*Previous History.*—Been in the possession of the owners about eighteen months, and had been sick soon after purchase with febrile cattarh, followed by strangles, but has been in regular work ever since.

*Symptoms.*—Taken ill with colic at work, she was brought home to stables about 5 p.m. The horsekeeper gave her a colic draught consisting of chlorodyne ʒviii, Spt. Eth. Nit. ʒi., which was repeated one hour later. We were called about one hour and a half after the second draught had been given, found her still suffering considerable pain, pulse 80 per minute, temp. 101·5, mucous membranes injected, and showing all the symptoms of ordinary colic. Gave her a draught of sol. chlor. hydras, ʒi cum ol. lini. Oi. On examination found rectum empty and ballooned, gave her cold water enema (Reek's method) by attaching hose pipe to tap and repeated these about every three hours. After this draught she lay down and continued quiet for probably one hour and a half, she frequently looked round to her sides, poking her nose in behind her elbows. At 12 p.m. she was restless but not in acute pain, and would stand with her head over the box door for a space of ten to fifteen minutes at a time. We applied a mustard plaster to abdomen and repeated the chloral and oil, which gave her much relief; this draught was repeated with only half the quantity of oil at 3 a.m.

On visiting her next morning about 5 a.m. we heard from the night attendants that she had been at intervals very uneasy, and was getting gradually worse. Her pulse was small and weak; temp. 101·5; respiratory movements quick and catchy; conjunctival mucous membranes of a reddish yellow colour. She was very much swollen in the off-side flank, we relieved the tympany with a trocar and canula. As the bowels were still inactive and intestinal murmurs absent, gave eserine grs. iss. hypodermically, also a draught consisting of spt. ammon. arom. ʒii, pulv. nux. vomica ʒi. in a pint of gruel. Hot cloths were applied to abdomen frequently, and the spirits of ammon. draught with gruel given every two hours. She died 5 p.m.

*Post-mortem appearances.*—All the organs and tissues of a bright yellow colour. The stomach was healthy, full of food, amongst which were several large strongyli. Duodenum, for about twelve inches, was of a much brighter yellow than the neighbouring parts, and felt like a piece of soft rope, on slitting this portion we found it simply crammed with strongyli, lying lengthwise, completely filling the lumen of the tube. The mucous membrane here was swollen and much inflamed, especially on its folds. The remaining portion of the alimentary tract and other organs were healthy, except the liver, which was enlarged, pale and friable.

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Assistant to Messrs. F. T. Stanley & Son.
Boro', S.E.

## MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION.

The quarterly meeting was held at the Grand Hotel, Birmingham, on Friday afternoon, August 26th. The President (Mr. T. Huband, of Cheltenham), occupied the chair. There were also present Messrs. F. J. Taylor, Birmingham; T. J. Merrick, Northampton; F. L. Gooch, Stamford; J. W. Coe, Stoke-on-Trent; H. Collett, West Bromwich; J. T. Potter-Carter, Malvern; J. Young, Birmingham; R. H. Over, Rugby; C. J. Byner, Birmingham; H. L. Pemberton, Bridgworth; W. H. Brooke, Handsworth; T. Slipper, Tamworth; H. E. Powell, Coalville; W. S. Carless, Worcester; J. Blakeway, Birmingham; W. R. Jermyn, Bristol; and A. C. Lloyd, Birmingham; and the Hon. Sec. Mr. H. J. Dawes, West Bromwich.

Letters or telegrams of apology for unavoidable absence were read from Professor Pritchard, Dr. Manley, (West Bromwich), Major Marriott, Messrs. R. C. Trigger, H. S. Reynolds, H. Fairer, A. Over, A. and L. Green, F. W. Barling, F. H. Gibbings, G. Wartnaby, J. Bainbridge, J. A. Connell, R. Hughes, J. C. Deville, J. Martin, J. J. Burchnall, W. Carless, E. and W. Beddard, A. W. Mason, and others.

The circular convening the meeting was read, and the minutes of the last quarterly meeting were read and confirmed.

### The Visit of the National to the Midlands.

The Hon. Sec. also read the minutes of a meeting of the Committee appointed to consider the details of the proposed visit of the National Veterinary Association to the Midlands next year. The Committee suggested Buxton as the place of meeting; nominated Mr. R. C. Trigger for the office of President; and suggested that Mr. J. W. Coe should act as local secretary.

These minutes were also adopted.

The Hon. Sec. read the following telegram which he had that day received from Mr. Hunting, Secretary of the National: "Association selected Buxton for next year, and Trigger as President. Accepted Midland's invitation with pleasure." He proposed that the telegram be entered upon the minutes of this meeting. At the same time he desired to point out that the entertainment of the National would involve a good deal of expense, and he appealed to individual members for their support.

Mr. Coe, in seconding, said there was no time to be lost in making the arrangements. The Midlands must spare no pains to make the visit a success. The motion was agreed to.

### New Member.

Mr. W. Reynolds Jermyn, of Clifton, Bristol, was proposed as a member of this Association by the President, in the absence of Mr. Barling. Mr. Gooch seconded the proposition, which was carried unanimously.

### The Health Congresses.

The President and Hon. Sec., who had attended as delegates from this Association, submitted brief reports.

### Congress of the Sanitary Institute.

Gentlemen,—I desire to thank you for having appointed me as delegate to the 22nd Congress of the Sanitary Institute which was held at Glasgow in the last week of July.

The Lord Provost, Sir John Ure Primrose, and the Corporation held a reception in St. Andrews Hall, and Lord Blytheswood, the President of the Institute, delivered his inaugural address, in which he gave a lengthy review of the sanitary state of Glasgow, and dwelt upon vivifying effects of sunshine and its important work in a sanitary sense; he regretted that through awful conservatism in regard to the smoke nuisance so little sunshine reached Glasgow, but he hoped those assembled would solve this and other great problems for improving the sanitary conditions of the people.

Essays were read on "The Cause of Small-pox," "The Progress and Prevention of Diphtheria," "Administrative Measures against Malaria and Consumption in the Tropics," "Infant Mortality, its Causes and Prevention," "The Sanitary Condition of the Mercantile Marine," "Muscle and Morality," "Disinfection of Rooms and Workshops," and "Tuberculosis in Cattle and its Conveyance to Human Beings by means of Infected Milk."

There was a Conference of Veterinary Inspectors at which I was unfortunately unable to be present, and I have been unable to obtain any report of the proceedings and discussions.

Many other subjects were brought forward for consideration which it is unnecessary for me to allude to, such as engineering and architecture, but I have been careful to obtain a local report of the whole proceedings, which will be with our Hon. Sec. should any member wish for further information.

Needless to add that everything possible was perfectly arranged for the comfort, convenience, and enjoyment of the delegates. My regret is that I could do so little to properly represent this important association, and that I am now unable to supply any useful scientific information as some return for your kindness.

T. A Huband, F.R.C.V.S.

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### Congress of Public Health.

The Congress of Public Health which I had the pleasure of attending on behalf of this Association, was held at Folkestone on July 21st to 26th, and was presided over by the Earl of Radnor. The section dealing with veterinary subjects was presided over by Dr. Klein, and the following papers were read:—"The State Control of Measures for Stamping Out Glanders," by Mr. W. Hunting, in which he stated that the average annual loss of horses from glanders was over 1,700, and that this year promises to be the worst on record. The full danger to man from this disease has not yet been acknowledged. The Registrar-General's reports for many years showed only two deaths per annum from glanders, but the last few years there was a rise to five or six, and he thought if it could be shown that the danger to man is really greater than is indicated by the Registrar-General's returns the medical profession would give the weight of their authority in favour of the adoption of more restrictive measures. He also said it was the opinion of the late Prof. Nocard that the majority of cases of human glanders are not diagnosed, and this was also the opinion of a number of Medical Officers of Health.

A paper on "The Veterinary Control of Dairy Herds," was read by Mr. Sydney Villar, in which he said the necessity for veterinary supervision of dairy herds was not sufficiently recognised. The periodical inspection of dairy cows by veterinary surgeons was the only means by which the exclusion of diseased animals from our dairy herds could be secured. He also drew attention to the increase of anthrax in this country, which he thought was due to the increased importation of foreign feeding stuffs, and he thought the steps to be adopted on an outbreak occurring on dairy premises was worthy of the consideration of veterinary surgeons and public health officials.

Others papers were by Professor Axe on "The Cow in Relation to Public Haalth"; Mr. J. Donaldson Pottie on "The Diagnosis between Dietetic Emphysema or Asthma and Tuberculosis"; Mr. McPhail on "The Necessity for Municipal Veterinary Inspection"; Mr. Crowhurst on "Dairies and their Management with Regard to the Supply of Milk to the Public."

There was a fair attendance of veterinary surgeons and very interesting discussions took place on the various papers. I was surprised to note that no reporters were present during the meeting of this section, and I fail to see the usefulness of the meeting unless the proceedings are freely reported.

H. J. Dawes, F.R.C.V.S.

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On the motion of Mr. Gooch, seconded by Mr. Collett, a vote of thanks was accorded the President and Hon. Sec. for their services in this particular direction.

The Hon. Sec., in the course of his reply, mentioned that in his case he had to complain of the manner in which he was treated, or rather the manner in which the Association had been treated. The name of the Association was not mentioned in the list of members, and he did not receive any notices relating to the meeting in the usual way. He also thought the veterinary section should be presided over by a veterinary surgeon. The absence of reporters from the veterinary section was also noticeable. The proceedings consequently had no permanent value. He had complained to the Secretary of the Congress, who had offered an apology. He must say, however, that his opinion of the Congress, considering the expense it was to the Association was anything but encouraging.

Mr. Gooch moved that a letter, embodying the questions raised by the Hon. Sec., be sent to the Secretary of the Congress. If their complaints were ignored, they would know what to do another year.

Mr. Taylor seconded the motion, which was carried.

## CERTAIN CANINE CASES.

By Mr. F. J. Taylor, Birmingham.

Mr. President and Gentlemen,—I have to thank you for allowing me to read an Essay before the members of this old and valuable Association. My excuses for bringing a paper of this character before you are: Firstly, that it is a subject I am keenly interested in, and therefore I trust that I may feel a greater confidence in withstanding a candid criticism from those who do not agree with my views. Secondly, I had the usual selfish motive in view, namely, to increase my own knowledge of the subject by the information the members present will impart during the discussion.

In these days when the supply of veterinary surgeons

*To illustrate Mr. W. Hunting's note.*

is greater than the demand for their services, and horses are being steadily replaced by motors of every description, it behoves town practitioners to leave no possible branch of their profession unstudied and uncatered for. It is my humble opinion that the canine and feline portion of our work has, until recently, been indifferently taught at our colleges, and unwisely neglected by the majority of practitioners, and I am convinced that if greater importance were generally attached to this interesting branch of veterinary medicine and surgery it would tend to elevate the profession in the eyes of a certain section of valuable clients who at the present time are not slow to express their disappointment at the apparent lack of interest which most veterinary surgeons take in the diseases of the smaller animals.

Canine work is essentially different to every other branch of veterinary work, and there is no doubt a divergence of opinion as to the financial yield from this class of practice compares with the incomes derived by successful horse and cattle practitioners, but I venture to suggest that the comparison would be highly satisfactory if one branch was equally as well catered for as the other. It is the very neglect of this branch of our work which induces clients to place their confidence in chemists and advertised medicines, both of which are equally dangerous to ourselves and to the animals receiving this empirical treatment. There is in canine work the greatest field for keen observation, and I think the histories of cases are more to be relied upon than in other branches of our work, as in the case of a dog or cat the owner has no other idea, as a rule, than to tell the truth and have the animal relieved as speedily as possible, whereas the history in horse cases is frequently concocted by a guilty attendant with an idea to hide his own negligence and deceive the practitioner. Of course I grant that occasionally we meet a client who is rather more difficult to treat than the patient. In fact as Gilbert puts it

> An instrument rare
> To be handled with care,
> And ought to be treated as such.

The difficulty in handling the smaller animals is often a deterrent to adopting the most approved treatment, but appliances in the shape of tables, muzzles, cat boxes, etc., etc., have been so improved in recent years that there is practically no risk in handling a fractious animal. Personally, I choloroform in nearly all cases of surgical operation attended with pain, when the patient being properly secured there is every facility for making any examination desirable.

It is my intention during the short time at my disposal to deal briefly with a few of the most interesting diseases met with in canine practice, taking firstly :—

*Canine Distemper*, *Canine Catarrh* (or generalised infectious catarrh of young animals). Not having had the opportunities for practical bacteriological investigation into the cause of this disease myself, I can but accept the theories of Messrs. Nocard, Phisalix, Gray, and others. The cause of this condition, as laid down by these authorities, is the micro-organism known as the "Pasteurella Canis," an organism similar in character and belonging to the pasteurella as described by Lignières in his group of diseases termed Pasteurelloses, which includes fowl cholera, swine plague, pneumo-enteritis of cattle, sheep, goats, and buffalo, equine influenza, guinea-pig distemper, two septicæmias of the rabbit, canine and feline distemper, typhus.

There is not space in this short paper to describe this organism in detail, important points in passing are that the pasteurella canis does not render turbid alkaline peptonized bouillon like the rest of the group of pasteurella as described by Lignières, that it is both ærobic and anærobic, and that it gives off a characteristic odour from cultures, it has no spores or cilia, virulence variable, has special affinity for articular and tendinous synovia, if injected intravenously it is found on post-mortem in the blood of the heart and other organs—rarely in the lungs, but the *cocco-bacillus fœtidus ozœna* of Perez is found instead in a pure state of culture. This latter parasite is said to be the cause of ozœna in man, and is found as the normal inhabitant of the dog's nostrils. The B. coli. communis is also found in the air passages of dogs suffering from an established attack of catarrh.

Phisalix maintains that the Pasteurella canis forms a soluble poison in antiseptic cultures, which if injected into susceptible dogs acts on the nervous system, and perverts the nutrition, and produces the majority of the symptoms seen in distemper not produced by artificial means.

*Predisposing causes.*—The most important of all, in my opinion, is sudden change of temperature from warmth to cold, particularly if produced by draughts. The early and late months of the year are the periods when catarrhal attacks are most prevalent. Other predisposing causes are errors in diet, damp kennels, washing at night and allowing dogs to remain in damp coats for several hours afterwards, instead of early morning bath and sufficient exercise during day to get thoroughly dry; hurried veterinary inspection of animals before benching and neglect to isolate dogs on returning from shows, overheating at shows during exhibiting hours, and no provision for maintaining the same temperature during the night, over fatigue from sport, following bicycles etc., exposure during transit by rail and sea. Worms depress the animal's condition and provide a medium for infection in consequence of a weak, unresistant, opposition to introduction and development of the invading organism.

*Period of Incubation.*—This varies with the condition of the animal. My own experiments lead me to fix about nine days as the most usual period for a dog in a susceptible state of health to develope the disease in anything like a recognisable form. It is in regard to this initial or negative stage that the majority of dog owners require warning information to prevent the disease becoming so well established that it is frequently beyond our control when brought for treatment. It is astonishing to me that most dog owners exhibit an absolute lack of ordinary observation in connection with this disease, and the credulity with which they will promptly dose the dog for worms when suffering from catarrh of the liver, stomach, or bowels. That some breeds are more susceptible than others I firmly believe, the cause of this is the weakening of the constitution by in-breeding, as in the case of the narrow skulled collie, and the leggy fox-terrier of the show bench to-day—almost devoid of muscular development. This constant attempt to "improve" a breed from judges' points alone, and leaving unconsidered the question of physical utility is the indirect cause of most cases of fatal distemper in the finer breeds of show dogs.

Some authorities maintain that the majority of cases of distemper occur during the warm weather, which favours the theory that the bacterial cause is encouraged to develope at a high temperature, and consequently is probably repelled by a low one, though in my personal experience I have had the greatest number of negative cases brought to me in the spring and autumn, and well established cases in hot weather—June, July, and August, but this may be merely a coincidence.

It is not my intention to described in detail the symptoms met with in all the stages of this disease, but the most important points I wish to make clear are in reference to the primary initial or negative symptoms of this disease. As a rule owners do not recognise it to be a case of distemper until the dogs or cats are discharging freely from the eyes and nostrils, and it is usually in this stage they are brought for treatment.

In my opinion distemper seldom starts primarily in the chest or upper air passages, but more frequently has its origin in the stomach, bowels, and liver. The theory that the organism or combined force of organisms which produce the first symptoms would be destroyed by the action of the gastric, biliary, and intestinal acids requires proof to justify belief. That the bacterial cause enters and disarranges the digestive economy is first indicated by the appetite for food, which become capricious or is entirely lost, during this stage the animal has an unnatural desire to overload the stomach and subdue the irritation of this initial catarrh which may cause as an accompanying external symptom of this digestive derangement an eruptive condition of the skin which is manifested by a condition resembling eczema, or sometimes a vesiculo-pustular condition of the skin in the region of the abdomen, inside thighs, scrotum, or vulva. This may develope or disappear during the first 48 hours, or during the succeeding three or four days become distended and burst, discharging a clear straw-coloured fluid which dries, forms a scab under which a cicatrix forms resembling that left after chicken-pox in man. This fluid, if injected subcutaneously into another dog will produce same symptoms, after disappearance leaving a ray-like areola of copper scales as seen after vaccination.

If the eruption be suppressed by a chill, and improperly treated at this stage complications rapidly ensue and gastric and enteric and nervous broncho-pneumonia symptoms are the resulting issues.

The early symptoms are also manifested by slight vomiting or constipation, dullness, desire to drink water in abnormal quantities, watery condition of the eyes, slightly injected mucous membranes, subnormal temperature, slight occasional cough and attempt to free the throat from mucous by retching. The temperature and pulse are uncertain, and misleading guides to diagnosis in these early stages. The condition of the mucous membrane is I consider one of the best indications as to the probable condition existing and the character of the fæces and urine, the slightest alteration in the dog's daily habits such as inclination to lie in obscure corner and avert attention if possible, irregular casting of the coat, easily induced fatigue, photophobic condition of the eyes. The characteristic odour of distemper may, or may not be present at this primary stage.

It is not difficult to recognise the disease in its established stages, namely catarrhal conjunctivitis, laryngitis, bronchitis, pneumonia, gastritis, duodenitis, enteritis, colitis, hepatitis, nephritis. It is more particularly in reference to the prevention and treatment of this disease that I wish to turn your attention and provoke a useful discussion.

### Prevention.

That distemper can be prevented by the most ordinary attention to diet and housing there can be no doubt. There is a prevailing fallacy existing amongst even the most intelligent dog owners that all dogs must have distemper, and that once they have contracted the disease and recovered they will never have it again—the usual recommendation when a sale of a dog is taking place is that "he has had distemper" and this is supposed to enhance the value of the animal, and the purchaser fondly believes that he has got an animal which is impregnable against every ill that flesh is heir to. I do not wish to contend that a slight attack of infantile catarrh does not sometimes produce immunity for the time being, but not to the extent which it is generally believed.

### Vaccination against Distemper.

Professor Phisalix, of Paris, substantiated to some extent the utility of the vaccine prepared by him, and he states that out of 985 dogs inoculated only 18 contracted the disease, quite a respectable record (on paper), but I venture to suggest that many of those dogs were kept under observation and declared perfectly free from infection before inoculation and kept under the most sanitary conditions afterwards would naturally be strong enough to withstand infection, and would have lived in any case. I do not feel convinced that the specific microbe or microbes of infantile catarrh in dogs and cats has been satisfactorily demonstrated, and I cannot think that a preventive vaccine of any value can be prepared until more definite cultures are obtained and unbiassed experiments are carried out in every-day practice.

My own experience with vaccine has not been reassuring, for out of a series of three recent experiments two inoculated and previously healthy dogs, directly under my own observation, contracted the disease two months afterwards when introduced into an infected area, and in the case of two large kennels I systematically inoculated, distemper was manifested in several instances where dogs had been vaccinated some months; but in fairness to the opinions of practitioners who have been more successful than myself I can only suggest that my experiments were perhaps improperly carried out, although to the best of my knowledge and ability I obeyed all the necessary instructions laid down by the advocates of this method. There may have been unrecognised distemper in the kennels when the inoculations were carried out, and the vaccinated animals may have been exposed to predisposing influences without my knowledge, and again I have many records of inoculated dogs that have not afterwards contracted the disease when brought in contact, but I have not a single instance of one animal being cured or relieved by inoculation when once the disease has been contracted in an established form, although I have made numerous experiments. No doubt the ensuing discussion will definitely proove that I am in error, and that my experiments have been useless and my suppositions therefore quite groundless.

### Treatment.

Mayhew, 1854.—"I am in possession of no specific."

In the very early stages of this disease I believe that the symptoms can be checked by: 1. Isolation; 2. Dry and warm surroundings as to bedding, clothing. 3. Cold temperature. 4. Nutritive easily digested diet according to age, frequent meals, avoiding starchy foods, such as oatmeal, arrowroot, biscuits, rice, patent meals, and relying more upon cold jellies obtained from mutton, veal, fish, chicken, etc. Milk in my opinion requires careful administration in the early stages of catarrh, particularly if affecting the digestive organs.

As to drugs I attach the greatest importance to early doses of calomel if the dog's condition is fairly strong, and there is no elevation of temperature. After the effect of this drug, repeated in small doses for two days, has ceased, small and frequent doses of sulphate of quinine in combination with the salicylate of bismuth, iodide of potassium, or chinosol. The treatment is purely symptomatic, and if lung symptoms are primarily predominant then the use of counter-irritants such as mustard, tr. camph. co., turpentine emulsion, hot felt or flannel cloths. Stimulants should be administered as indicated by the character of the pulse, temperature, and mucous membranes.

The greatest importance should be attached to the nature of the fæces and urine during early stages, and the frequent use of nutritive enemata assist the bowels to act and relieve the anterior digestive organs.

During the early bronchial symptoms I have found the greatest relief afforded by glyco-heroin in small and frequently repeated doses of half to one dram, assisted by creolin, eucalyptus, and terebene, steam inhalations and hot moist lateral applications to the sternum and chest walls.

The primary conjunctivitis, which may be the only symptom present, is greatly relieved by the yellow oxide of mercury ointment, or solution of perchlor of mercury and cocaine, or ½ to 1 % solution of sulphate of zinc if an astringent is required. The dog should be kept in a perfectly dark place during treatment, or traumatic ulcers rapidly form; and the discharges not too frequently washed from the surroundings of the eyes with boric or chinosol solutions and aseptic cotton wool. Opacities of the corneal coat may be removed by oxide of zinc, or red precipitate, 1-20.

When the respiratory symptoms have become fully established and we have generalised catarrh of the lungs and upper air passages, and expectorants become necessary, I have found that tr. camph. co., ipecacuanha, squills, chloride and carbonate of ammonium, spts. æther nit., chlorodyne, glycerine, are useful agents to employ, each having its individual virtue. To combat a serious elevation of temperature I use antifebrin in small doses given alternately with a stimulant such as spt. amm. ar. I do not think that alcoholic stimulants in our cases are beneficial, and the use of diaphoretics such as liq. ammon. ac., etc., are not attended with good results in my experience. Linseed meal poultices with mustard, hot flannels wrung out of turpentine are doubtful in their action. Any preparation containing morphia should be condemned if there is heart or respiratory depression present and tr. digitalis or strychnine given in guarded doses instead. During the later stages inhalations of oxygen are of immense benefit. After the crisis tonics may be administered; such are quinine, iron, quassia, gentian, cod liver oil and malt extract.

The croupous form of pneumonia as seen in the cat is more difficult to treat, and the use of counter-irritants practically an impossibility. The same drugs are indicated as in the dog, one-fifth of dose being usually the reduction necessary.

The digestive symptoms, ranging from catarrh of the stomach to typhoid enteritis with complications of liver, and kidneys are to be treated as they occur.

An Emetic: 1-100th grain of apomorphine subcutaneously. Stomachic: Ac. hydrochlor. one part, gentian four parts, aq. 60, ½ to 1 teaspoonful.

In the early stages of catarrhal gastritis, and if constipation is not present to a marked extent, I have employed the salicylate of bismuth in 3 to 6 grain doses every four hours or oftener as vomiting demands. This drug should be assisted in its action by rectal injections of peptonised meat extract in solution, Brand's beef, or chicken jelly given cold per mouth. If milk is given it should be peptonized, and diluted with cold water. If gastralgia is a symptom of this catarrh sedatives may be given, such as chlorodyne, opium, and hot fomentations, and belladonna liniment applied to the region of the stomach, or in severe cases a mild blister.

If a persistent diarrhœa is a troublesome symptom it should not be suddenly checked until the cause has been first treated, this being essentially a bacterial catarrh, and not one due to undigested foods in the alimentary canal, is usually amenable to such drugs as salol, beta naphthol. bismuth, mist. pepsin c. bismuth, salicylate of soda, and bismuth quinine. Sedatives and astringents should only be used as a last resource.

In cases of ulcerative catarrh accompanied by tenesmus, chlorodyne in conjunction with salicylate of bismuth may be administered with good effect to prevent intussusception which is common in young dogs during intestinal distemper. Enemas of chinosol and starch in solution, with tr. opium added if necessary, are also of some value.

Hæmatoxylum, catechu, aromatic chalk powder, is seldom desirable though always indicated, and if the catarrhal cause is removed it will not be necessary to treat its effect. In cases where the vomiting or diarrhœa are uncontrollable and traces of blood are noticed in the excretions, I have found on post-mortem examination that the stomach and duodenum are usually ulcerated, the ulcer resembling macroscopically in every particular the typhoid ulcer of man. When hæmorrhage is due to this cause I do not consider curative measures are of much avail.

When the catarrh affects the nervous system I prescribe potassium bromide, 1-10 of water, teaspoonful every four hours. Chloral hyd. sulphonal, bromide of arsenic, Easton's syrup, hydrobromic acid, iodide of potassium, caffeine ½ to 2 grammes subcutaneously. Counter-irritants along the course of the spine, and nerves affected, massage, electricity, but treatment of this stage of distemper is most frequently attended with disappointment when the infection has been in the system any length of time.

Cats do not seem to be so susceptible as dogs to nervous complications according to my own observations, although the disease is undoubtedly identical in its other stages in both animals.

I have already expressed the opinion in a note to *The Veterinary Record* that infantile catarrh has been undoubtedly transmitted on several occasions to both male and female attendants nursing infected cases directly under my own observation. Nasal catarrh and conjunctivitis, laryngitis, and bronchitis are the forms in which it is usually contracted, and invariably runs a short course.

## A Note on Canine Tuberculosis.

In view of the great interest which all the members present must naturally take in the interim report of the Royal Commission on tuberculosis, I have taken this opportunity of introducing this disease as affecting the dog and cat, and its probable transmissability from man. There is every reason to believe that the bacterial cause of consumption in man is identical with that of cattle and other animals and *vice versa*

The disease has been readily transmitted by material of human origin to cattle which on post-mortem examination reveal the typical description of ordinary bovine tuberculosis.

If it is so easily transmitted to the larger animals from human beings there is more probability that it is still more readily transmitted to the smaller ones which are in closer contact in every way with the contagium, they being in many cases constantly in the same atmosphere and taking food from the same utensils as their consumptive owners.

I have most definite cases on record where cats in particular have undoubtedly contracted both the pulmonary and mesenteric forms of tuberculosis in this manner, and during the last twelve months I have held post-mortems on three dogs, which revealed in one case well established miliary tuberculosis of both lungs with adhesions. In the other two the disease was present more particularly in the abdominal lymphatic glands. I have injected tuberculin in several instances where the symptoms were suspicious, but I do not consider it so reliable in canine cases as a diagnostic agent as in cattle, where I believe it to be invariably accurate in its reaction.

The symptoms of this disease in the dog are the characteristic chronic cough (heard after excitement or sharp exercise as a rule), the emaciation is usually slow in its progress. These two symptoms, accompanied by the history of chronic debility, and often the direct evidence of contact with a tuberculous owner, should make us sufficiently suspicious to make a bacteriogical examination of the sputum, discharge from nose if present, or by puncturing the thorax and obtaining a specimen of the pleuritic exudate if there is reason to believe the lungs and pleuræ to be affected. This may be injected interperitoneally into guinea pigs and provides most definite proof of the existence of the disease.

Dogs or cats suffering from tuberculosis are incurable

if at all badly affected, and should be immediately destroyed and buried, and every precaution taken to disinfect or destroy all in-contact materials, irrespective of the fact that no legislation exists on the subject, this disease not even being scheduled as a contagious one by the authorities, who up to now have stubbornly avoided expert opinion and advice on this subject. No doubt this is an economical way of dealing with the inevitable compensation bogey, which is after all the only method of eradicating the disease from the lower animals and providing the more than urgent protection necessary to public health in respect to this most terrible of all the diseases of which the bacteriological cause is fully demonstrated.

### Discussion.

Mr. Coe said they were much indebted to Mr. Taylor for his paper. He was sorry to hear of his experience with vaccine; it was similar to his own. Two of the dogs he experimented upon were adult dogs, and two were puppies. Three weeks or a month afterwards, he placed them in a loose box with a puppy suffering from distemper. Nothing happened, and he placed them later with another dog. Six months afterwards, one of those dogs died from distemper, and between seven and eight months afterwards, another one suffered from it. It was a remarkable fact that no dogs were more susceptible to distemper than hounds; he wondered, too, why it was that in their case the distemper nearly always took the hepatic form. Sporting dogs seemed to be particularly subject to that form of distemper. One thing with regard to the treatment that struck him was the Essayist's knowledge of the *materia medica*, and his handling of the elderly spinster (laughter). He himself favoured a cold temperature, but he liked to put the patient where it could sleep comfortably, and he often placed a hot water bottle against it to maintain the body heat.

Mr. Potter-Carter said it afforded him great pleasure to hear such an able paper from an old college friend, but he must say he did not agree with him in everything. One thing that particularly struck him was his remarks about catarrh of the stomach, and the bowels and liver being affected. He (the speaker) believed that mild catarrh passed away, and it was of mild cases that the veterinary surgeon heard little or nothing. That had certainly been his experience in the commencement of cases of distemper. With regard to prevention by means of vaccination he hardly knew what to say. He had tried vaccine in otter hounds, fox hounds, and also cocker spaniels, and in one case the master of the otter hounds had used ordinary calf lymph with a certain amount of success. The only thing that tempted him was this, that if the master of the otter hounds had met with success with calf vaccine, it ought to follow that specially prepared vaccine would be even more successful. The success that was achieved might have been due principally to the favourable atmospheric conditions; if the same thing was tried in other districts there might not be the same good results. There were a few cases of distemper, and they were isolated for a considerable period. The essayist had spoken of the advantage of a systematic course of treatment; perhaps he would explain the term a little more fully. He quite agreed with Mr. Taylor as to the value of quinine and chinosol, he himself had always found the results very good indeed. He could endorse all that had been said with regard to canine tuberculosis. Not long ago a client of his had a cat affected, and he was afraid the animal contracted the disease from one of the children. At the present time the child was away in a very critical condition, and he believed the cat must have got at the sputum of the youngster and so become infected. He made a post-mortem examination of the cat, and it was clearly a case of pulmonary tuberculosis. He thought great care should be taken to see that cats and dogs were not suffering from tuberculosis; as soon as the disease was detected, the animal should be destroyed, for the sake of the persons with whom it might come in contact. With regard to the prevention of disease, a gentleman in his neighbourhood who sent a lot of dogs to shows, adopted a method that was worthy of their attention. He carried all his own dog boxes, and took care when they came from a show that they were isolated absolutely for three weeks; the result was that he had not had distemper at his kennels for some considerable time.

Mr. Over thought the ordinary practitioner need not concern himself about much else than distemper in the dog. He would like to know something more of the cutaneous effects of distemper, which were troublesome to get rid of. He had been very successful with the pepsin and bismuth that Mr. Taylor mentioned, but he had not tried vaccine. He was waiting for more favourable reports concerning it.

Mr. Gold (who arrived late) was sorry to say he had not heard the paper because the subject was one in which he was interested. He gathered from the discussion that the essayist had dealt largely with the subject of distemper. Nearly all veterinary surgeons met with a few of those cases, and they arose in different forms; at any rate, they met various phases of it. One year, they were able to treat a number of cases with a fair amount of success; whilst another year, using the same treatment, they met with no success at all. One year, he had found nearly all the cases more or less of the typhoid character, that is they got the typhoid form of influenza and distemper from the very outset, which usually ended in a breaking up of the lung structure and very often death, no matter what remedies were adopted. With regard to vaccination, he had only had a few experiments, and he could not at all say that he was successful in warding off attacks. Speaking of tuberculosis, he had only seen it in just a few of the smaller animals, chiefly cats and pet dogs. He believed it was rarely seen in animals that spent most of their time out of doors. A question had been asked with regard to skin eruptions during the more serious attacks of distemper. It could scarcely be called mange; he thought it was a form of eczema. There was one other matter he would like to mention, and that was that during the last ten years or so he had noticed a decided increase in the number of cases of malignant growth, especially n the female sex of all dogs. He had been keeping a little record of such cases, and they were really very striking.

Mr. Powell said his experience had been more with the nervous form of distemper. They were certainly the most prevalent with him, and the general results were not very satisfactory he was sorry to say.

Mr. Jermyn said his experience with distemper was that the principal thing to attend to was nursing. He had achieved most success by putting the patients in a hay loft, where they could get plenty of sun, and feeding them with any food they would take. There were a great many fox hounds walked with farmers, and those that had the least done to but were well nursed made the best recovery. Those which the puppy-walker dosed with all sorts of nostrums sent to him by the huntsman were generally the ones that died.

Mr. Brooke said he had seen a considerable number of cases of distemper, and he generally found them take the catarrhal form, with discharge from the eyes and nose. Possibly the cases were not brought to him early enough, but he had not seen any preponderance of the negative symptoms. With catarrhal symptoms he generally used quinine. He generally combined with that squills, ipecac. etc., and he sometimes employed various other agents, such as oil of eucalyptus. He also generally ordered a milk diet, and even allowed the use of

arrowroot ; he did not quite see why the essayist should exclude the starchy foods. Was it that they encouraged acidity? With regard to eruptions, he used the old fashioned borax and glycerine, and an ointment composed of about a drachm of nitrate of mercury to a two ounce box of vaselin, and about the same proportion of sulphur as was used in the ordinary sulphur ointment.

Mr. BYNER, on the subject of treatment, said that in the cases with which he had had to deal he gave plenty of fresh air and nutritious food, and in the earlier stages he had been very successful with quinine or nitrate of potash. He had never tried vaccination, and knew nothing of it. With motor cars increasing in popularity the use of horses would naturally decline, and therefore he thought veterinary surgeons would do well to study dog practice more than they had done. Personally, he did not like dog practice, and had even tried to avoid it, but they had to tackle many things they did not like. He was surprised to hear the essayist condemn the use of stimulants. His own experience was that when dogs got very depressed, a small dose of brandy or port wine had been beneficial.

The PRESIDENT said they must all agree it was very good of Mr. Taylor to bring before them a subject, which though somewhat unusual on those occasions, had proved distinctly interesting. Like many veterinary surgeons he was not fond of dog practice, although at Cheltenham, where there were a good many of the elderly spinsters of whom Mr. Taylor had spoken, he believed it could be made remunerative. There was this also to be considered, as a previous speaker had already suggested, in these days of motor cars and fewer horses, the ordinary practitioner was often seriously handicapped, and he ought to make every post a winning post. With regard to the organism which was supposed to be the cause of distemper some years ago, about 1890, a gentleman of the name of Millais claimed to have discovered it. He (the speaker) was very much interested in the discovery, and had some correspondence with him, which resulted in his going to see him in London. The gentleman named was satisfied he had discovered the organism, and made some preparation from it, which he claimed was absolutely effectual in preventing the disease. He (the speaker) took some of the culture and made a series of experiments with him. They met with the same success as the present cultures, and he was not satisfied that the organism had been discovered, though it was generally accepted that the trouble was due to an organism. He favoured the view that there was a specific organism, and that when they could identify it and deal with it in the same manner as other organisms they would in time be able to prevent the disorder. He thought there was a good deal in what Mr. Taylor had said with regard to the present day tendency to develop the show bench features of dogs as opposed to the utility characteristics of the different breeds. In that sense he thought the large number of dog shows that were held were not calculated to improve the breeds, though it was perhaps high treason to suggest the fashionable features in some varieties were not likely to improve either the dog's usefulness or its beauty. He had seen lots of distemper among foxhound and terrier puppies, and the hepatic form had been the most common. Next to that in point of frequency he should place what might be described as the nervous form of distemper. At the Cotswold kennels distemper was very prevalent for many years, and he strongly urged the desirability of removing the bitches or allowing them to be sent away at the time of whelping. Until the last two or three years that advice was not followed, but latterly the bitches had been removed from what he regarded as the tainted ground, and there had been very few cases of distemper since. He had been much interested in Mr. Potter-Carter's case of the transmissibility of tuberculosis, and it only emphasised the importance to the human subject that the disease should be properly diagnosed among the lower animals. He accepted chinosol as a very valuable agent in the treatment of distemper.

Mr. TAYLOR, in reply, thanked the meeting for providing so interesting a discussion, by means of which he had greatly added to his knowledge of the subject. He was glad to have his opinion with regard to vaccination backed up by other practitioners. Mr. Coe had asked why he considered the decrease in the muscular development of the dog should render him more susceptible to distemper. He (the speaker) quoted the case of the collie and the fox terrier merely as examples ; he took it generally that the breeds were deteriorating physically. The fox terrier's skull was narrower than it was, so that his mental capacity could not be so great ; and his chest was also narrower, which must similarly affect his pulmonary parts, and he could not resist disease to the same extent. With regard to the hepatic form of distemper, as in the fox hound, he could only suggest that the disease started in the stomach, and was not relieved by the food they had. They had the same sort of food every day of their lives, roughly cooked and very fibrous in its nature. He was surprised to hear Mr. Potter-Carter say that in his experience the symptoms were nearly always manifested in the eyes and nose ; he was afraid Mr. Carter did not observe the disease in the hepatic form at all. Mr. Carter seemed to advocate vaccination, and the results he had obtained had no doubt been satisfactory to himself, but he could hardly agree with him that calf lymph which was used against small-pox could be efficacious in cases of distemper.

Mr. POTTER-CARTER : That was not my own experience. It was the experience of the Master of the Hounds.

Mr. TAYLOR : The credulity of that master is evidently great, but personally I attach no importance to his experience. Continuing, he explained that when he spoke of inoculating the kennels systematically, he meant the whole of the kennels right through, and not merely the young dogs. He quite agreed with the importance of isolating dogs immediately they returned from the show bench; a month or six weeks was not too long. Mr. Over asked for information regarding the cutaneous symptoms; they occurred primarily and were of short duration. It resembled eczema, and probably it was eczema caused by the digestive organs being disturbed. He could not agree with Mr. Gold when he said that lung complication generally killed a dog with the typhoid form. His (the speaker's) experience was that ulceration caused death, and a post-mortem examination invariably proved that the lungs were only slightly congested. He readily agreed that tuberculosis was rare in dogs that lived out of doors; it was the pet dogs and cats that were nursed and fondled that were affected, and Mr. Carter's case of the inter-communicability of the disease was most interesting and also conclusive. The presence of malignant growths, alluded to by Mr. Gold, had also been his experience. He had had a tremendous lot of cases lately of mammary tumours and the like, and he could not explain it, unless it was that people were becoming more nervous as the result of the cancer scare, and took their pets oftener to the veterinary surgeon than they used to. He agreed with Mr. Jermyn upon the importance of nursing, but the difficulty generally was to get attendants who would carry out instructions properly. In answer to Mr. Brooke, the reason he objected to any starchy foods was because in the case of a dog suffering from catarrh of the stomach they required an excessive amount of digestion. He did not agree with the use of sulphur ointment for eczema; he thought it would be too stimulating.

The Hon. Sec. proposed a vote of thanks to Mr. Taylor for his very interesting paper. When asked if he would prepare one, Mr. Taylor assented most readily, and in that respect set an example which other members of the Association would do well to follow. (Hear, hear.)

Mr. Coe seconded the vote of thanks, which was carried unanimously, and suitably acknowledged by Mr. Taylor.

Place of Next Meeting.

On the motion of Mr. Gooch, seconded by Mr. Powell, it was resolved to hold the next quarterly meeting at Leicester.

An Interesting Case.

Mr. Young produced the bones of a recent case of complete dislocation of the shoulder joint. It was regarded as unique, and excited considerable interest.

The members, as usual, had tea together before separating.

H. J. Dawes, F.R.C.V.S., *Hon. Sec.*

## MEAT INSPECTION.

Mr. W. Hunting said: Legislation has recognised the necessity for inspection of food of all kinds, whilst the seizures of bad food and the penalties inflicted on the vendors which are recorded daily in our newspapers, show that there is still much to be done in protecting the public health. Persons engaged in the meat trade frequently resent the action of inspectors, not always without cause. The protection of the public should not be irreconcilable with the interest of honest dealers, and increased strictness of inspection might well be attained without any injury or annoyance to these men. The great offender is not the reputable dealer, but the odd man who is ever ready to make a profit on material that no respectable tradesman would touch. Even a man of good standing may sometimes find himself in trouble through the carelessness or ignorance of his servants. It is also possible that men may be unjustly convicted for an alleged offence through the error of an inspector. The changes which convert good food into bad are sometimes not evident to the uninstructed, and sometimes are matters of degree, upon which two opinions may honestly exist.

*The requirements of an Inspector of Foods.*—An inspector should be not only a man of natural intelligence, but one possessed of technical training. At the present time there are inspectors wanting in both these requisites. Their actions are accompanied by hardship to honest traders, and encourage opposition to the carrying out of the law. Food inspectors should supply some evidence of their efficiency, and the simplest method of doing so is the production of a certificate from a recognised authority stating that they have been tested and found capable. The Sanitary Institute now grants such a certificate, and holders of it should be preferred when local authorities are selecting candidates for the office of food inspector.

The whole reason for the inspection of food is the protection of public health, and therefore with the medical officer of health must always be the ultimate decision of what is fit or unfit for human consumption. It is obvious that his other duties must prevent him from giving direct attention to all the details of food inspection, and that he must have special officers to assist. To the sanitary officers, then, fall the duties of meat inspection, and whatever doubt arises, or the law requires, the medical officer must be called in to advise or condemn. It cannot be expected that the sanitary officer should be a trained pathologist capable not only of detecting changes of food, but also of recognising their exact nature and qualities. Most of the ordinary changes he should be able to detect at sight, with knowledge of their nature, but in some his power to detect will not be accompanied by exact diagnosis of the nature of the change, and then he calls upon his chief to decide.

To no one are the pathological changes which take place in domestic animals so well known as to properly-trained veterinary surgeons. The whole course of study and clinical experience of veterinarians is devoted to the subject, and I venture to claim for them pre-eminence in the work of meat inspection. Their attainments should be utilised, and when circumstances supply full scope for their powers and fair remuneration for their services, as is the case where large public abattoirs exist, I hold that the meat inspection should be entrusted to them. There need be no conflict between their duties and those of a medical officer. All that is necessary is that an agreement should be come to as to what is fit or unfit for human consumption, and the veterinary inspector's decision may then be accepted.

*The Difficulties of thorough Meat Inspection.*—Outside of a public abattoir meat is distributed over private slaughterhouses, butchers' shops, and various factories where it is prepared for food in different forms. Thorough inspection should cover all these places, but we know that many escape notice altogether, and some receive only very irregular visits.

Then there is the facility with which meat may be moved by road and rail and delivered to unknown places. Owners of live stock have not yet distinguished between what is fit or unfit for food, and they have a not unreasonable desire to salvage all they can. Cows that appear to be approaching death from some disease are treated in the same way as those that suffer from a broken leg. Nearly every village contains a handy man who combines general dealing with horse and cattle slaughtering, and who is ready to dress and purchase the dead or dying animal. The resulting meat is sent to the nearest large town, and as often as not escapes inspection. Even the heavy penalties inflicted by the City of London Courts do not deter men from sending all kinds of pathological specimens to the metropolis as food for its inhabitants.

The only effectual method of controlling this irregular traffic is a regulation requiring that all meat sent by road or rail shall be consigned, or taken, to a central place for inspection before being delivered to any private person. All towns should have the power to make and enforce such a regulation.

Every slaughterhouse should be licensed, and every person acting as a slaughterman or dresser or carrier of meat should also be licensed.

*What is fit or unfit for consumption?*—This question should be answered as closely as possibly. Of course, conditions will occasionally arise in which, with the food before them, two men equally capable may hold opposite opinions. The degree of unfitness must sometimes be a matter so fine that disagreement is allowable, but these cases will be few and far between if the general principles are accepted which shall determine what is fit or unfit for human food. Guidance is wanted for the owner of meat and for the inspector, and the men to determine are the medical officers of health. Some uniformity of action is very desirable if inspection is not to be discredited. It is absurd that meat should be seized in one town which is passed in another. It is still worse when a certain definite condition is called unfit by one authority but fit by another. The methods of meat-inspection should not only be uniform, but the regulations governing them should be general. Imported foods and meats should be inspected as carefully as our home-products. It is obviously unfair to force a standard of excellence upon our meat-producers and dealers, whilst the foreigner is permitted to compete without any restriction whatever. It may

be argued that the inspection of a cargo of beef or mutton would be such a tedious and expensive business as to be a hardship to the traders; but inspection need not include the examination of every carcase; every tenth or twentieth would soon determine the quality of of a cargo; and the very fact of any inspection being enforced here would increase the rigour of the inspection adopted at the port of embarkation. The suggestion of the Local Government Board that all stripped carcases should be seized is insufficient, some examination of the lymphatic glands should be added.

By way of inviting discussion as to unfitness of meat, I offer a few remarks on some conditions which are believed to be deleterious.

[The author then referred in detail to Putrefaction, Emaciation, Inflammation, Specific and Parasitic Diseases.]

In the larger towns, where abattoirs exist, meat-inspection is very thoroughly done, so far as the abattoir is concerned. But meat may be killed outside the urban boundary and brought in with no certainty of anyone seeing it, save the butcher and his customer. Some kind of clearing-house is needed, through which all meat killed outside the boundary should compulsorily pass.

Probably the most dangerous and offensive meat is used only for manufacture into prepared foods, and therefore these manufactories should be regularly inspected. All places where meat is prepared or sold for human consumption should be licensed and open to inspection.

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Dr. H. E. Armstrong (Newcastle-on-Tyne) said although he was not in entire agreement with all that had been advanced in the two papers, he was very largely in accord with most of the views expressed by Col. Notter and Mr. Hunting. There were several points not touched upon that he would like to have seen dealt with. One, for instance, was the question of the Tuberculosis Compensation Bill. Mr. Hunting had given him an opportunity of alluding to the inspection of foreign meat. We received a large quantity of foreign meat in this country, which was fortunate; probably we were going to get a larger supply in the future than in the past, especially, perhaps, from Argentina. It was important, as Mr. Hunting had pointed out, that meat should not be sent from abroad to handicap honest trade here. But the importance of carrying out the inspection efficiently was very great. Dr. Collingridge could speak more authoritatively on this matter than himself. The suggestions which had been thrown out did not seem to meet the difficulty, and the greater the difficulty the greater was the need for trying to surmount it. Foreign meat was sent to us in various conditions; it was, too, all sheeted, and he did not think that the inspections of a carcase here and there among several thousands was an adequate or proper examination of such meat. Because one carcase was good it did not follow the whole cargo was uniformly good. This was assuming too much, but it was the practice to which they seemed to be driven at present. There should be an organisation to go further than that. Offal, for instance, came in boxes, and no information was obtainable as to the prevalence or otherwise of tuberculosis in the carcases to which it had belonged. The foods from the United States came stamped. But the stamp said nothing about the quality of the meat sent. Perhaps it was sent without any examination of the glands having been made. Sometimes the carcases came with the pleura removed. Not long ago there was a case in Newcastle of a carcase from which the pleura had been removed and in which the glands were beginning to undergo changes, only found out upon examination. The flesh was seized and destroyed with the consent of the consignee. The facts indicated a very imperfect way of dealing with such matters. With regard to the rules for the seizure of tuberculous meat, he thanked Mr. Hunting for his very fair exposition. He quite agreed that meat inspection should be under the control of the Medical Officer of Health. He would like to see one uniform method adopted in all towns. That was probably a more difficult thing to obtain than the mere examination of all carcases of beef from America, because opinions varied among Medical Officers of Health. After long experience he was of opinion that the term "tuberculous meat" thould be more clearly defined than it is. What is at present so-called, is meat with *visible* tubercles on, or in, it; but long before the disease became visible the meat was tuberculous. This fact was well known to bacteriologists, but in the trade it was lost sight of. If that fact were fairly grasped, then the moment a piece of meat became visibly tuberculous to even a small extent, it should be dealt with, because the visible tubercle was the sign of the invisible tubercle or microbe, and was a proof that something had been going on in the tissues and juices of the animal for a considrable time before the visible home of the tubercle bacillus had been built for it. One of the greatest difficulties that beset inspectors and medical officers was that of getting prosecutions, even in cases of very bad meat sent in from the country, because of some technical point or other.

Dr. W. A. Bond (Holborn) said that after being appointed medical officer of health for the Holborn District Board of Works, it was suspected, and he confirmed the suspicion, that a large amount of very much diseased meat was being introduced into that district, meat that was quite unfit for food. There were great difficulties in the way of inspection, because meat was brought into that district very early in the morning. It was practically impossible for officers engaged on day duty to be up at that time. It was therefore essential that a meat inspector should be appointed, and they were very fortunate in securing the services of Inspector Billing, who was no doubt well known to them all. The result was that during the year following the appointment he had to attend various law-courts between 120 and 130 times. He also read a paper before The Sanitary Institute on "Public Abattoirs," and on the great difficulties there were in the way of a satisfactory meat inspection. As far as London was concerned he felt it was necessary to have public abattoirs, which could be supervised by veterinary surgeons, who had more knowledge of animals than a medical officer of health. He quite agreed with Mr. Hunting that uniform standards ought to be laid down, and that medical officers ought to come to some uniform decision with regard to difficult points. He was therefore glad that the Royal Commission on Tuberculosis had laid down general rules for the seizure of tuberculous carcases. Even before the findings of that Commission he had always practically acted upon those lines. Another point with regard to the seizure of carcases was that if there was evidence that the animal had not been properly bled, it should be seized; because in such cases there was little doubt that the animal had been dead or about to die before it was pre-prepared for food. He was glad to hear Dr. Armstrong emphasise the point raised by Col. Notter as to the knives, a point which had also been dealt with in Dr. Sidney Martin's evidence before the Commission.

Dr. T. Whiteside Hime (Bradford) said he was glad to bear his tribute to the great value and importance of the papers that had been read, and he trusted it would not be considered out of place if he ventured to differ from Col. Notter and Mr. Hunting on one or two points, and that his criticism would not be taken as implying any lack of appreciation of the value of their contributions to subjects brought forward by them. Mr. Hunt-

ing had commenced with the statement that the legislation of the country dealt with all kinds of food. He wished it were so; but there was one important article of food which was not affected by the law, because the law had taken the trouble to exclude it specifically, and that article of food was water, one of the prime necessaries of existence. For some inscrutable reason water had been excluded from food legislation. The interesting points raised by Col. Notter and emphasised by Mr. Hunting in regard to putrescence ought to be laid to heart by all, especially by those wishful to become inspectors, because these points were usually very much lost sight of. The tendency was to hunt for the presence of one of the specific diseases, such as tuberculosis or anthrax, of which there might be no evidence, the decay and putrid condition being regarded as of little or no importance. There was one noticeable and very remarkable difference between the two papers that had been read. Col. Notter seemed to have directed his attention mose particularly to the scientific aspects of the question under consideration, and to high and rather fanciful ideals. Col. Notter considered that meat is not fit for use under various conditions, which Mr. Hunting considered should not prevent meat from being passed as fit to be consumed. Here were two authorities at variance, without any question of getting a legal verdict being raised, or any possibility of suggesting prejudice. The evidence upon which a great deal of meat was condemned as being unfit for food was often dependent on the feeling, or prejudice of the individual. When a question of degree arose there would unavoidably be difference of opinion in some cases. But where there was scientific evidence of facts, mere opinion should not decide important questions. For instance, it was considered desirable in nearly all cases to condemn the carcases of animals drowned, or had suddenly died, or had not been properly bled. He did not think that any sufficient grounds had been advanced to them for that procedure, or proof given that such meat was unfit for food. It was on account of the condition of the meat, and not on account of the violent death that it should be passed or condemned. If the meat was bad it should be condemned, and if good it should be passed, regardless of the mode of death. Or to take another instance, the condemnation of a whole carcase because there had been found some animal parasites in the intestines, which are wholly incapable of living within the human body. That was not altogether a rational proceeding. Mr. Hunting took the same view as he did, the other view was not supported on any ground. Take for instance *pâté de fois gras*, a relish derived from a diseased condition of the liver, and often artificially produced by subjecting the animals to unnatural and unhealthy conditions of life. That was eaten all over the civilised world, and no one had ever suggested that there was any danger in that delicacy. He could not see any sound reason for supposing that the presence of intestinal worms in animals, which could not develop in the human being, should be regarded as a reason for condemning the carcase of the host. If the host had suffered in health from the long continuance or great number of the parasites, then the unhealthy carcase should be condemned. He thoroughly endorsed the view that had been advanced as to the necessity for having only well trained and carefully educated meat inspectors, that men should be thoroughly qualified before they undertook to exercise the tremendous powers they possessed under the Public Health Acts to interfere with private property, ruining possibly not only a man's trade but also his character. The powers were very large, and ought only to be entrusted to persons of considerable special knowledge and large experience. He was not referring to the large cities where the medical officers were trained men and gave their whole time to their duties and generally had well trained inspectors under them, but to the great area of the country where inspectors had to fill up their time with many varied functions, in fact, all imaginable duties, and medical officers got a few pounds a year for casual attention to the very responsible and important powers they held under the Public Health Acts. He thought they would all agree with him that no men should be allowed, without proper qualification and training, to carry out the important duties of meat inspection under the Public Health Acts.

(*To be continued*).

## THE NEW SHEEP SCAB REGULATIONS.

### Meeting at Rothbury.

A large and representative meeting of flockmasters and farmers of Northumberland and the adjoining counties was held on September 16th in the Rothbury Auction Mart, at the conclusion of Messrs. Donkin and Son's ewe sale, for the purpose of considering the serious position which will be created by the new Sheep Scab Order of the Board of Agriculture.

On the motion of Mr. R. C. Hedley, Mr. Wm. Forster, of Burradon, was unanimously elected chairman.

Letters were read from Lord Armstrong, Sir Henry H. Scott, Messrs. John Robson, Newton ; George Robertson, Embleton ; Chatres, Akeld ; Hindmarsh, Newton ; Rea, Middleton ; Brown, Callaly ; Pawson, Shawdon ; and J. W. Wilkinson, Keepwich ; all of whom, without exception, condemned strongly the provisions of the Order, and expressed their approval of the resolution which appeared on the agenda paper.

After the Chairman's remarks the following resolution was put to the meeting and carried unanimously :—"That this meeting, largely representative of the flockmasters of Northumberland and the adjoining counties, protest against the report on sheep scab and its treatment adopted by the Departmental Committee appointed by the Board of Agriculture : (1st) Because it unduly interferes with the management of their business, that such regulations are impracticable, and infringe the liberty of the subject. (2nd) Because on many farms, and under certain conditions such regulations could not be carried out without injury to the sheep and consequent loss to their owners. (3rd) Because they object to such power being given to the police as is embodied in the Order. (4th) Because in the management of their business they are best qualified to judge both of the dip to be used, the time it should be used, and the method of its application. (5th) Because the regulation affecting sheep scab should be under the control of the local authorities in each county, being the most competent judges of local requirements, and should not be subject to any interference from well meaning but inexperienced officials in London. That in the opinion of this meeting, all that is required to eradicate sheep scab from any district is to make flockmasters responsible for the freedom of their sheep from scab, and report its outbreak at once to the local authorities under severe penalties."

It was resolved that copies of the resolution be sent to the Chairman of each County Council in England, Scotland, Wales, and Ireland, as well as to the Board of Agriculture, through the Newcastle Farmers' Club, and Mr. Hedley was instructed to take steps to have that done.

At the conclusion of the meeting a hearty vote of thanks was accorded to Mr. Robert Donkin, sen., for the active part he had taken in arranging the meeting.

A vote of thanks was also passed to Sir H. H. Scott for his observations upon the report, and his refusal to sign it.

A vote of thanks to the Chairman brought the meeting to a close.—*Newcastle Daily Journal.*

## DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

| Period. | Anthrax. | | Foot-and-Mouth Disease. | | Glanders (including Farcy) | | Rabies. Cases Confirmed. | | Swine Fever. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Out-breaks | Ani-mals. | Out-breaks | Ani-mals. | Out-breaks | Ani-mals. | Dogs. | Other | Out-breaks. | Slaugh-tered * |
| GT. BRITAIN. Week ended Sept. 17, 1904 | 13 | 22 | .. | .. | 44 | 68 | .. | .. | 15 | 100 |
| Corresponding week in 1903 .. | 9 | 12 | .. | | 32 | 64 | .. | .. | 25 | 253 |
| Corresponding week in 1902 .. | 11 | 14 | .. | .. | 25 | 37 | .. | .. | 28 | 145 |
| Corresponding week in 1901 .. | 15 | 26 | .. | | 31 | 51 | .. | .. | 29 | 154 |
| Total for 38 weeks, 1904 .. .. | 722 | 1134 | .. | .. | 1168 | 2065 | .. | .. | 1032 | 4808 |
| Corresponding period in 1903 .. | 579 | 881 | .. | .. | 1119 | 1869 | .. | .. | 1170 | 6063 |
| Corresponding period in 1902 .. | 510 | 815 | 1 | 120 | 865 | 1535 | 12 | 11 | 1292 | 5930 |
| Corresponding period in 1901 .. | 464 | 659 | 12 | 669 | 1018 | 1743 | 1 | 1 | 2763 | 13450 |
| Board of Agriculture and Fisheries, Sept. 20th, 1904. | | | | | | | | | | |
| IRELAND. Week ending Sept. 10, 1904 | .. | .. | .. | .. | .. | .. | .. | .. | 9 | 50 |
| Corresponding Week in 1903 .. | .. | .. | .. | .. | . | .. | .. | .. | 7 | 52 |
| Corresponding Week in 1902 .. | .. | .. | .. | .. | 1 | 4 | .. | .. | 3 | 98 |
| Corresponding Week in 1901 .. | .. | .. | .. | .. | .. | .. | .. | .. | 6 | 49 |
| Total for 37 Weeks, 1904 .. .. | 3 | 3 | .. | .. | 9 | 30 | .. | .. | 166 | 3356 |
| Corresponding period in 1903 .. | 2 | 3 | .. | .. | 2 | 3 | 2 | .. | 142 | 3076 |
| Corresponding period in 1902 .. | .. | .. | .. | .. | 8 | 34 | .. | .. | 142 | 2820 |
| Corresponding period in 1901 .. | 1 | 2 | .. | .. | 4 | 4 | 1 | 1 | 200 | 3505 |

Epizootic Lymphangitis, Week ending Aug. 6. 1 case.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Sept. 15th, 1904.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection.

## REPORT OF SHEEP DIPPING COMMITTEE.

The report of the Departmental Committee appointed on April 8th, 1903, by the Board of Agriculture and Fisheries to investigate experimentally and to report upon certain questions connected with the dipping and treatment of sheep has been issued as a Blue-book.

By its terms of reference the Committee was appointed to investigate experimentally and to inquire into and report upon the three following questions:

(1) The composition and essential constituents of efficient dips and other preparations for the treatment and dressing of sheep, and their effect upon the animal treated or dressed and upon the parasites and other organisms for the destruction of which they are used; (2) the methods in which such dips and other preparations should be employed, and the appliances and facilities requisite for the purpose; (3) the times and intervals at which sheep should be treated or dressed, regard being had (*a*) to the life-history and characteristics of the sheep-scab acarus and of the other parasites and organisms of sheep which require external treatment, and (*b*) to the practical conditions under which sheep farming is carried on in various parts of the United Kingdom.

Besides the special points referred to the Committee, the effect which sheep dips have upon wool when used for commercial purposes has been considered. The Committee examined thirty-one witnesses, the greater number of whom directly represented those interested in sheep farming in this and other countries. Sheep dipping experiments were arranged by the Committee and carried out under the direction of Professor Winter at Madryn, the farm of the University College of North Wales, at Bangor.

### RECOMMENDATIONS OFFERED.

As the result of its investigations the Committee propose that periodical dipping with an effective dip should be made obligatory on all owners of sheep; and in order that this proposal may be carried out the following recommendations are made:

(1) That the Board of Agriculture and Fisheries, after consultation with the local authorities, should authorise by Order each local authority in Great Britain to prescribe regulations by which they shall secure once in each year effective dipping of all sheep (except show sheep and rams which are being prepared for sale, provided they are not permitted to come in contact with other sheep on the holding) by a dip recognised by the Board of Agriculture and Fisheries as efficient.

(2) That the period prescribed for dipping should be arranged for each county by the local authority, and should fall between two specified dates within six months after shearing.

(3) That the Board of Agriculture and Fisheries should appoint one or more veterinary or other inspectors for a county or a group of counties for the purpose of seeing to the due execution and enforcement by the local authorities of the Diseases of Animals Acts, 1894 to 1903, the Sheep Scab Order of 1898, the proposed Orders above mentioned, or any future Orders relating to parasitic diseases of sheep which may be issued by the Board of Agriculture and Fisheries or by the local authorities.

(4) That in the event of any local authority failing to carry out effectually the above Acts and Orders, that they be administered directly by the Board of Agriculture and Fisheries, the cost of such administration to be charged upon the local authority.

(5) That notice of the proposed date of dipping should be given by the owner to the local authority, and, after dipping, a declaration should be sent to the local authority within a week, stating (*a*) the number of sheep which have been dipped and where the same are located; (*b*) the day on which such dipping was effected; (*c*) the name of the dip or the composition of the dip or material used; (*d*) that the dip was properly mixed, and that the dipping was effectually and thoroughly done.

(6) That waste dipping materials shall be disposed of in such a manner as to prevent injury to animals or to any water supply.

(7) That during the period prescribed for dipping no sheep should be removed from any place, farm, premises, or market, except on a declaration from the owner (a copy of which should, immediately after the movement, be forwarded to the nearest police constable) that they have been dipped, provided nevertheless that no declaration should be required for the movement of sheep to a dipping tank for the purpose of being dipped.

The Report is signed by all the members of the Committee except Sir Henry H. Scott. Mr. Hedley. while signing the report, does so subject to certain matters set forth in a note which we subjoin, together with the statement in which Sir Henry Scott gives his reasons for dissenting from and refusal to sign Report.

### Note by Mr. M. Hedley, F.R.C.V.S.

In signing the foregoing Report, I desire to express myself in accord with the majority of the recommendations, but feel compelled to dissociate myself from them more particularly in regard to the universal compulsory dipping of all sheep in the United Kingdom, chiefly referred to in paragraph 28 *et seq.*

Before definitely referring to this point I would direct attention to paragraph 27, wherein it is shown that much dissatisfaction prevails owing to restrictions at present in force in districts, and which act in a manner prejudicial to sheep farming, are harassing to the trade, and vexatious to flock owners.

Upon the evidence received by the Committee it is markedly shown that the carrying out of any scheme of compulsory universal dipping must necessitate the imposition of measures of a very restrictive character, and owing to the variations in climate, in sheep farming, trading, breeding, etc., these restrictions must extend over a long period before the fulfilment of such scheme can be accomplished. This is particularly emphasised by paragraph 35, which relates to the regulations suggested for the enforcement of compulsory dipping.

Some of the witnesses were satisfied that a scheme so extensive was impracticable, others, who were prepared to recommend the course, admitted there were immense difficulties to be contended with, while in only one or two instances was any scheme submitted.

New Zealand has been freed from this disease by other measures than compulsory universal dipping. Compulsion of this kind was not resorted to at any time until after the eradication of the disease had been procured, and then for other purposes than dealing with sheep scab.

I am of opinion that instead of increasing the dissatisfaction mentioned in paragraph 27 by imposing over the whole United Kingdom compulsory dipping regulations, they should be limited to districts and areas where sheep scab is suspected or known to exist and which could be defined by the British and Irish central authorities respectively; thus giving the maximum of advantage with the minimum of annoyance.

### Note by Sir Henry H. Scott.

I am sorry I cannot sign the report.

I agree with my colleagues in their Report up to page 15, paragraph 32, as far as the words "New Zealand" in the sixth line, and I particularly wish to draw attention to paragraphs 30 and 31, and the said six lines of paragraph 32.

I disagree with paragraph 34, as it only contains intricate provisions which are unnecessary.

I agree with paragraph 35, section (1), except the last words of the section, viz., "by a dip recognised by the Board of Agriculture and Fisheries as efficient," which words I would eliminate. I disagree strongly with sections (4) and (5), and with sub-sections a, b, c, and d. These sections and sub-sections seem to me most objectionable. The carrying of them into operation would be most irksome and expensive—a county inspector and the present force of police would prove quite inadequate; and on the other hand sheep owners would be harassed and irritated by most inconvenient and offensive formalities and police surveillance; indeed, the provisions are such that it seems to me that the liberty of the British subject is compromised, and the cure (which I doubt) would be worse than the disease. I do not know of any industry which is hampered with conditions so inimical to success. The irritated sheep owners would lay the blame of their unhappiness on the Board of Agriculture and so militate against the friendly feeling which it is important should exist between the Board and the farmer.

I propose to obtain compulsory dipping by a much less offensive procedure, and to have the scab eradicated by the provisions which have worked so satisfactorily in the Colonies, mentioned in paragraphs 30, 31, and 32 of the Majority Report. Surely it is common-sense to follow a successful precedent rather than start an untried, unworkable scheme which will make everyone connected with it dissatisfied.

In my simple scheme only the guilty would be harassed or troubled. The principle which I go upon is that every owner of sheep is responsible for the freedom of his sheep from scab, and I would in no wise mix up the responsibility of the owner with that of the Board of Agriculture, because the effect of such a mixed liability would be that if there was death from the dipping, or if the scab was not cured, the sheep owner would turn round and say, "I have done as the Board instructed me, and the blame is that of the Board and not mine."

I append the rough headings of what I consider a workable scheme, which would quickly eradicate sheep scab from the kingdom, as like provisions have had that effect in the Colonies.

### Suggested Regulations.

1.—All sheep to be dipped at least once each year with effective dip, onus of proof to rest on the sheep owner.

2.—Inspector to be appointed for each county or counties by the Board of Agriculture.

3.—Owner to give immediate notice to the nearest policeman of an outbreak of scab in his sheep.

4.—If an owner fails to give notice he is liable to be fined.

5.—The policeman to give notice to the County Inspector.

6.—The County Inspector to visit the farm, and if he finds scab present he shall declare the farm an infected area and shall give notice to the Clerk of the County Council.

7.—If it is found by the Inspector that the sheep have not been properly dipped, the owner shall be liable to be summoned and fined.

8.—The inspector shall inform the owner that if the sheep are not cured in forty days, he, (the owner) is liable to be fined, and further fined each forty days the sheep remain uncured.

9.—If the owner asks for advice as to the best way of curing the disease, the Inspector may inform him as far

as is in his power, but at the same time inform the owner that he alone is liable.

10.—Every farm on which 100 sheep or more are kept must be provided with an efficient dipper.

11.—The county shall provide movable dippers for the use of small holders when necessary, in which the owners shall use their own dip, and pay for the use of the dipper at the rate of one half-penny for each sheep dipped.

12.—The dipping season to be from the 20th June to the end of October.

13.- The Inspector should have full power to enter on all lands and premises at all reasonable times for the purpose of inspecting sheep stock.

I generally agree with paragraphs 36, 37, and 38 on to the end of the Report.

## VETERINARY PRELIMINARY.

Edinburgh, September 12, 1904.

*To the Editor of The Scotsman.*

Sir,—In the article in your Saturday's issue on the Royal (Dick) Veterinary College a marked injustice—apparently unintentional—is done to the veterinary student. In referring to the preliminary examination the impression is created that it is not worth much. That is a mistaken impression. It is admittedly below the standard of the present medical preliminary examination, but only since 1900, when that examination was raised. Till then the minimum examination required for the two classes of students was practically the same. And even now the general knowledge examination for law agents is not accepted by the Royal College of Veterinary Surgeons as equivalent to their examination.

Again, in referring to the inducements offered by the Carnegie Trustees, it is stated that veterinary students can get their fees paid by passing the University medical preliminary examination. That is not the case. The Carnegie Trustees insist on veterinary students who desire to participate in the benefits of the Carnegie bequest passing the University science preliminary examination—admittedly a higher examination than the medical.

Therefore, veterinary students cannot get their fees paid by the Carnegie Trustees without passing a higher examination than is exacted from medical students.—I am, etc.,

VETERINARY SURGEON.

## Another Horse Stampede.

The Irish military manœuvres have begun in the same way as the Essex manœuvres began—with a stampede of horses.

At an early hour on Saturday morning last the camp of the Blue force at Athy, Co. Kildare, consisting of nearly 3,000 men, was thrown into a state of wild excitement. In an instant a silent scene of slumber was transformed into one of indescribable confusion. Men, dazed by sudden awakening, rushed out of their tents and saw 600 horses dashing wildly helter-skelter down the camp lines. Other men, before they could form any idea of what was happening, found their tents coming down upon their heads.

In their mad progress some of the animals rushed over the tents of sleeping men. One soldier had his right shoulder dislocated, another had his leg injured; a third is suffering from a fractured rib, while a fourth had all his teeth broken. It is remarkable that more of the soldiers were not injured. Nothing could be done to stop the horses. From the camp they reached the public road, and the men in amazement watched them scatter in all directions and disappear. Then search parties were organised, and most of the horses were eventually recaptured. Some of them were seriously injured, and were sent to the Curragh.

The stampede was started by one horse, which was covered with a blanket, breaking loose. The rest immediately followed his lead.

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The casualty list of the horses killed and injured in the stampede at Southampton on September 4 is not yet complete, owing to the fact that upwards of a score are still missing.

During the week following the stampede 415 horses were returned to Aldershot by train for veterinary treatment. The majority were suffering from cuts and bruises. Thirteen were shot, and several others had to be destroyed subsequently. One-third of the horses returned are still under treatment.—*Daily Express.*

## Personal.

On the 12th August, at Colombo, Ceylon, the wife of G. W. Sturgess, M.R.C.V.S., Government Veterinary Surgeon, of a son.

On September 19th, at "Haselmere," Whitedadies Road, Clifton, Bristol, the wife of G. Bishop, M.R.C.V.S., of a son.

# CORRESPONDENCE.

## THE R.V.C's. SUPPORT TO ITS MEMBERS.

Sir,

Mr. Woodroffe Hill's letter on the above subject will appeal to many veterinary practitioners. Why is it, I wonder, that the R.V.C. cannot be content with taking our college fees to educate us as qualified veterinary practitioners? We pay these fees, hoping that the teaching thus obtained will enable us to earn a livelihood as such; but when we get into practice we find that this Institution is doing its best to take the bread out of our mouths by "cheap" practice, and inviting nobility and gentry to become subscribers to the Institute, for which privilege they are entitled to veterinary advice at a fee proportionately smaller than they might perhaps expect to pay outside of it. No one will disageee with me in saying that the idea of gratuitous information to poor people who have the welfare of their dumb animals at heart but are not in a position to pay a veterinary surgeon's fees, is a laudable one; but, like many other charitable objects, it may be abused, and, for my own part, I cannot help thinking that were the circumstances of these "poor people" enquired into, it would be found that many of them are in a better position to pay the usual fee than many of those who now do so.

I myself have experienced the "rivalry" of the R.V.C. Some little time ago, I was treating a case for a client of mine, who father I suppose suddenly remembered that he was a subscriber to the R.V.C., with the result that on going to see it one morning I was told Mr. ——'s father, Lord ——, was a subscriber to the College and he had sent the horse there for their opinion. No one blames a man for going to what he considers the cheapest market, or where he thinks he can obtain the best opinion, but it appears with regard to the R.V.C. that "all is fish that comes into the net," and they neither take the trouble nor have the inclination to consider other practitioners and ascertain if they are taking away cases from them. In every-day practice, cases like this would come under the head of consultations.

Luckily for me my case was a perfectly simple one, and my diagnosis was confirmed by the "wise men" of Camden Town, but it was for all this none the less galling to feel that anybody's clients might act in the same way at any time, and, as in this case, be relieved by this benevolent Institution of clients which they can ill afford to lose.

The R.V.C. is a teaching school, and we should like to see it remain so. The cheap practice should be sufficient for the needs of the students, and it is distasteful for an Institute in its position to enter into competition with ordinary practitioners by writing subscribers and soliciting patronage. Such a line of procedure if adopted by a private practitioner would, I think, soon find opposition from the Registration Committee. Assuming that the "latest opinions" can be obtained by clients there, it is not fair that they should be obtainable at the expense of the outside practitioner. If the opinion of this Institute is desired by a practitioner's client, let it be obtained by professional consultation between the College and the client's veterinary surgeon, but for the College to surreptitiously snap up anything and everything that offers itself without considering or endeavouring to ascertain if they are annexing other practitioners' clients is to stir up a prejudice between them and the profession which for many reasons is not desirable.

It is of course, we are all aware, an age of competition, but we have quite enough to contend with in every day practice without having to guard against "poaching" by an Institute whose principles should prompt them to carry out the maxim "Live and let live."—Apologising for trespassing on your valuable space I remain, yours faithfully,

"COUNTRY PRACTITIONER."

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COMMUNICATIONS AND PAPERS RECEIVED.—Messrs. G. D. Martin, A. M. Trotter, G. H. Bishop, H. G. Simpson. Capt. W. A. McDougall. G. M.

*Report Bombay Veterinary College, 1903-4. Annual Report of V.S. to Corporation, City of Glasgow; Newcastle Daily Journal, East Cumberland News.*

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## Veterinary Societies—Addresses.

***Alterations for this list must be duly notified by the Secretaries***

BORDER COUNTIES V.M.S.
*Pres*: Mr. J. W. Hewson, M.R.C.V.S., Wigton
*Hon. Sec. (pro tem.)*: Mr. F. W. Garnett, M.R.C.V.S., Dalegarth, Windermere
*Meetings*, Second Friday of Feb., June, and October

CENTRAL V.M.S.
*Pres*. Mr. R. Porch, F.R.C.V.S., Farm Lane, Walham Green, S.W.
*Hon. Sec*: Mr E. Lionel Stroud, F.R.C.V.S., 29 Spring-st., Hyde Park, W.
*Meetings*, First Thursday in each month, except August and September, 10 Red Lion Square, Holborn, at 7 p.m.

CENTRAL V.A. OF IRELAND.
*Pres*. Mr. M. J. Cleary, M.R.C.V.S., Kilpatrick, Mullingar
*Hon. Sec*: Mr J. J. Vahey, M.R.C.V.S., Ballinrobe
*Treas*: Mr. J. F. Healey, M.R.C.V.S., Midleton

EASTERN COUNTIES V.M.A.
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*Hon. Sec.*: Mr. H. P. Standley, M.R.C.V.S. Wymondham
*Meetings*, Second Tuesday, Feb. and July

GLASGOW V.M.S.
*Pres*. Principal McCall.
*Hon. Sec*. Mr. Walter Gardner

VET. MED. ASSN. OF IRELAND.
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LANCASHIRE V.M.A.
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*Hon. Sec.*: Mr. G. H. Locke, M.R.C.V.S. Grosvenor-street, Manchester
*Meetings*, 1st Thursday in April, June, Sept., & Dec.

LINCOLNSHIRE V.M.S.
*Pres*. Mr. T. B. Bindloss, M.R.C.V.S., Long Sutton
*Hon. Sec*: & *Treas*: Mr. T. W. Turner, M.R.C.V.S., Sleaford
*Meetings*, Second Thursday, Feb., June and October

MIDLAND COUNTIES V.M.A.
*Pres*: Mr. T. A. Huband, F.R.C.V.S., Cheltenham
*Hon Sec*: Mr. H. J. Dawes, F.R.C.V.S., Camden House, High-st., West Bromwich
*Meetings*, Second Tuesday, Wednesday, Thursday, and Friday alternately in Feb., May, Aug. and Nov.

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*Pres*: Mr. G. Craik, M.R.C.V.S., Alnwick
*Hon. Sec*: Mr. E. R. Gibson, M.R.C.V.S. 25 Marlborough-street, Seaham Harbour
*Meetings*, Third Friday, Feb., May, Aug. and Nov.

NORTH OF SCOTLAND V.M.S.
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*Sec. & Treas*: Mr. Clement Baxter, M.R.C.V.S., Elgin

NORTH WALES V.M.A.
*Pres*: Mr. R. Price, M.R.C.V.S., Tarvin
*Hon. Sec*. T. C. Howatson, M.R.C.V.S., St. Asaph
*Meetings*, First Tuesday, March and September

ONTARIO V.A.
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*Sec*: & *Treas*: Mr. C. H. Sweetapple, V.S., Toronto, Ontario

ROYAL COUNTIES V.M.A.
*Pres*: Mr. E. P. Owen, M.R.C.V.S., Thame
*Hon. Sec*: Mr. Percy J. Simpson, M.R.C.V.S., Kendrick House, Maidenhead
*Hon. Treas*: Mr. J. P. S. Walker, F.R.C.V.S., Oxford
*Meetings*, Last Friday, Feb., June and Nov.

ROYAL SCOTTISH V.S.
*Pres*: Mr. Reid, M.R.C.V.S., Auchtermuchty.
*Hon. Sec*: Mr. W. D. Fairbairn, M.R.C.V.S., Cupar, Fifeshire

ROYAL VETERINARY COLLEGE M.A.
*Pres*: Professor Macqueen
*Hon. Sec*: Mr. H. L. Jones, M.R.C.V.S.
*Assist. H.S.* Mr. E. Brown

SCOTTISH METROPOLITAN V.M.S.
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*Hon. Sec*: Mr. John Aitken, Junr., M.R.C.V.S., Dalkeith

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*Pres.*: Mr. E. R. Gibson, M.R.C.V.S., Seaham Harbour
*Hon. Sec*: Mr. W. Awde, F.R.C.V.S., Stockton-on-Tees.
*Meetings*, First Friday, Mar., June, Sept. and Dec.

SOUTHERN COUNTIES V.M.S.
*Pres*: Mr. F. Spencer, M.R.C.V.S., Claremont House, Basingstoke
*Hon. Sec*: Mr. J. Alex. Todd, M.R.C.V.S., Worthing
*Hon. Treas*: Mr. E. W. Baker, M.R.C.V.S., Wimborne
*Meetings*, Last Thursday, Mar., June and Sept.

TRANSVAAL V.M.A.
*Pres*: Capt. Irvine Smith, South African Constabulary
*Hon. Sec*: Mr. Kirby Pilkington, M.R.C.V.S., Johannesburg

WESTERN COUNTIES V.M.A.
*Pres*: Mr. A. H. Oliver, M.R.C.V.S., Devonport
*Hon. Sec*. Mr. W. Ascott, M.R.C.V.S., Bideford
*Hon. Treas*: Mr. P. G. Bond, M.R.C.V.S., Plymouth
*Meetings*, Third Thursday, March, July and November

WEST OF SCOTLAND V.M.A.
*Pres*: Dr. James McIntosh McCall, Vety. Coll. Glasgow
*Hon. Sec*: & *Treas*: Mr. J. Bishop, M.R.C.V.S., 754 Garscube Road, Glasgow

YORKSHIRE V.M.A
*Pres*: Mr. S. Wharam, M.R.C.V.S., Sholebroke Avenue, Leeds
*Hon. Sec*; Mr. J. Clarkson, M.R.C.V.S., Garforth, nr. Leeds
*Treas*: Mr. J. E. Scriven, M.R.C.V.S., Tadcaster
*Meetings*, Last Friday in Jan. April, and October, and a Thursday in July.